Notice of Allowability	Application No. 09/893,262	Applicant(s) NG ET AL.
	Examiner Dieu-Minh Le	Art Unit 2114

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the amendment filed on 04/25/05 and the interview on 05/06/05.*

2. ☒ The allowed claim(s) is/are *1-20.*

3. ☒ The drawings filed on *06/27/01* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some*   c)☐ None   of the:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a)☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

      1)☐ hereto or 2)☐ to Paper No./Mail Date _____ .

    (b)☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

    Paper No./Mail Date _____ .

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

1.   This office action is in response to the Amendment filed

04/25/2005 and the interview on 05/06/2005.

2.   Claims 1-20 are allowable over the prior art of record.

3.   An Examiner's Amendment to the record appears below.
Should the changes and/or additions be unacceptable to
applicant, an amendment may be filed as provided by 37 C.F.R.
§ 1.312. To ensure consideration of such an amendment, it **MUST**
be submitted no later than the payment of the Issue Fee.

EXAMINER'S AMENDMENT:
IN THE CLAIMS:

    Please replace all prior versions of claims in the application

with the current listing claims:

AMENDMENTS TO THE CLAIMS

1.(Currently Amended)   A method of retrieving a complete copy
of data from a plurality of stored copies of the data, the
plurality of stored copies contained in a different set of
storage locations in a data storage system, the method
comprising:

(a) selecting one of the copies from the plurality of
     stored copies;

(b) identifying defective storage locations in the
     selected copy;

(c) locating replacement storage locations from the
     plurality of stored copies other than the selected
     copy; and

(d)   merging storage locations from the selected copy with replacement storage locations defining the complete copy of substantially error free storage locations.

2. (Previously Presented) The method of claim 1 wherein step (a) includes selecting one of the copies from the plurality of stored copies having a longest sequence of error free storage locations.

3. (Previously Presented) The method of claim 1 wherein each of the plurality of stored copies of data comprises at least one defective storage location from which data is not recoverable.

4. (Previously Presented) The method of claim 1, wherein the selecting one copy step (a) comprises:
   (a)(1)   sequentially reading each storage location of the set of storage locations from each of the plurality of stored copies;
   (a)(2)   recording a number of error free storage locations read before a first defective storage location is encountered when each of the plurality of copies is sequentially read in accordance with step (a)(1); and
   (a)(3)   identifying one copy having a longest sequence of error free storage locations from the recorded number of error free storage locations corresponding to each copy of the plurality of stored copies.

5. (Previously Presented) The method of claim 1, wherein the locating replacement storage locations step (c) is performed by

locating the set of storage locations of at. least one of the plurality of stored copies other than the selected copy, wherein the locating is restricted to reading storage locations within the set of storage locations that can replace defective storage locations identified in step (b).

6. (Previously Presented) The method of claim 1, wherein the merging storage locations step (d) is performed in a buffer memory.

7. (Original)   The method of claim 1, wherein the plurality of stored copies is all contained on one disc surface.

8. (Original)   The method of claim 1, wherein individual copies of the plurality of stored copies are distributed on different disc surfaces.

9. (Original)   The method of claim 1, wherein individual copies of the plurality of stored copies are interleaved.

10. (Original) A disc drive storage system implementing the method of claim 1.

11. (Currently Amended)   A data storage system, comprising:
      at least one storage medium having a plurality of stored
            copies of information, with information of each of the
            plurality of stored copies contained in a different
            set of storage locations; and
      a controller configured to select one copy of the plurality
            of stored copies, and to identify defective storage

locations in the selected copy, and to locate replacement storage locations from the other stored copies, and to merge storage locations from the selected copy with the replacement storage locations defining a complete copy, <u>of substantially error free storage locations,</u> of the stored information.

12.(Previously Presented)   The data storage system of claim 11 wherein the controller is further adapted to select one copy of the plurality of stored copies having a longest sequence of error free storage locations.

13.(Previously Presented)   The data storage system of claim 11 wherein each of the plurality of stored copies of information comprises at least one defective storage location from which data is not recoverable.

14.(Previously Presented)   The data storage system of claim 11, wherein the controller is further adapted to sequentially read each storage location from each of the plurality of stored copies, and to record a number of error free storage locations read before a first defective storage location is encountered when each of the plurality of stored copies is read, and to identify the copy having a longest sequence of error free storage locations from the recorded number of error free storage locations corresponding to each copy of the plurality of stored copies.

15.(Previously Presented)   The data storage system of claim 11, wherein the controller is further adapted to selectively

read the set of storage locations of at least one of the plurality of stored copies other than the copy having a longest sequence of error free storage locations.

16. (Previously Presented)   The data storage system of claim 11, further comprising a buffer memory to temporarily store the complete copy.

17. (Previously Presented)   The data storage system of claim 11, wherein the plurality of stored copies is contained on one data storage medium.

18. (Previously Presented)   The data storage system of claim 11, wherein individual copies of the plurality of stored copies are distributed on different data storage media.

19. (Previously Presented)   The data storage system of claim 11, wherein individual copies of the plurality of stored copies are interleaved.

20. (Currently Amended)   A data storage system, comprising:
      at least one storage medium having a plurality of stored copies of information, with information of each of the plurality of stored copies contained in a different set of storage locations; and
      a controller means for selecting one copy of the plurality of stored copies from which information is recoverable, and for identifying defective storage locations in the selected copy, and for locating replacement storage locations from the other stored

copies,   and for merging storage locations from the
selected copy with the replacement storage locations
defining a complete copy, <u>of substantially error free
storage locations,</u> of the stored information.

4.   Authorization for this Examiner's Amendment was given in a
telephone interview with Mr. Alan G. Rego, Registration No.
45,956 on May 06, 2005.

Any comments considered necessary by applicant must be
submitted no later than the payment of the Issue Fee and, to
avoid processing delays, should preferably **accompany** the Issue
Fee.   Such submissions should be clearly labeled "Comments on
Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier
communications from the examiner should be directed to Dieu-Minh
Le whose telephone number is (571) 272-3660. The examiner can
normally be reached on Monday - Thursday from 8:30 AM to 6:00
PM.

If attempts to reach the examiner by telephone are
unsuccessful, the examiner's supervisor, Robert Beausoliel can
be reached on (571)272-3645. The Tech Center 2100 phone number
is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DIEU-MINH THAI LE
PRIMARY EXAMINER
ART UNIT 2114

DML.
05/06/05